Engine Failure Takeoff (Not Airborne)

Sufficient Runway Remaining

1. Throttle – CLOSED
2. Brakes – APPLY
3. Stop Straight Ahead

Insufficient Runway Remaining

1. Throttle – Closed
2. Brakes – APPLY MAX
3. Mixture – IDLE CUT OFF
4. Fuel Selector – OFF
5. Master Switch – OFF
6. Magneto's – OFF

Maintain directional control, maneuver to avoid obstacles.

Engine Failure Takeoff (If Airborne)

Sufficient Runway Remaining

1. Airspeed – **120 Kts.**
2. Land straight ahead

Insufficient Runway Remaining

1. Airspeed – **120 Kts.**
2. Throttle – CLOSED
3. Mixture – OFF
4. Prop – LOW RPM
5. Master Switch – OFF
6. Magneto's – OFF
7. Flaps – AS REQUIRED
8. Maintain directional control and make only shallow turns to avoid obstacles.

Best Glide Configuration

1. Gear – UP
2. Flaps – UP
3. Propeller – LOW RPM
4. Airspeed – 120 kts.

Best demonstrated glide is .75 NM per 1000 ft. 120 kts, 1570 FPM, glide ratio 7.7:1

Engine Failure Takeoff (Return to Airport)

1. Airspeed – **120 kts.**
2. Fuel Selector – FULLEST TANK
3. Mixture – RICH
4. Throttle – INTERMEDIATE SETTING
5. Magneto's – CYCLE, then BOTH
6. Boost Pump – HIGH (to check for engine driven fuel pump failure)
7. Flaps (Final) – AS REQUIRED

Engine Failure (In Flight)

1. Establish Best Glide – **120 kts.**
2. Landing Site – BEST SUITABLE
3. Air Start - ATTEMPT
4. Unable to start – PROP LOW RPM SETTING
5. Fuel Selector – CHECK TO FULLEST TANK
6. Boost pump – HIGH (momentarily)
7. Throttle – INTERMEDIATE
8. Magneto's – CYCLE, then BOTH
9. Radio – 121.5 DECLAIR EMERGENCY
10. Transponder – 7700

Off Airport Landing

1. Seat Belts / Harnesses – TIGHT
2. Door Seal – DEFLATE
3. Gear – AS REQUIRED
4. Boost Pump – OFF
5. Fuel Selector – OFF
6. Magneto's – OFF
7. Flaps – DOWN
8. Master Switch – OFF
9. Airspeed – DECREASE TO TOUCHDOWN

Rough Running Engine

1. Mixture – RICH
2. Boost Pump (+10,000) – LOW
3. Magneto's – CYCLE then BOTH
4. Mixture – ADJUST

Engine Fire In Flight Electrical

1. Avionics Master Switch – OFF
2. Master Switch – OFF
3. All Electrical Equipment – OFF
4. **If fire / smell goes away, turn master switch ON, then each item one at a time trying to isolate the cause of the fire. If cause cannot be determined LAND AS SOON AS ABLE!**

If Fire Continues

1. Throttle – IDLE
2. Mixture – CUT OFF
3. Fuel Selector – OFF
4. Boost Pump – OFF
5. **Land immediately and exit the aircraft as soon as possible**

Engine Fire During Start

1. Starter – CONTINUE CRANKING
2. Mixture – IDLE CUT OFF
3. Throttle – FULL OPEN
4. Boost Pump – OFF
5. Fuel Selector – OFF

Loss Of Pressurization

1. Oxygen Mask – ON IN 5 Sec
2. Aircraft Control – REGAIN, MAINTAIN
3. Emergency Decent – INITIATE

If Cabin door is unsecured:

1. Do not attempt to correct in flight
2. Oxygen masks – ON
3. Emergency Decent – INITIATE
4. Cabin – DEPRESSURIZE
5. Aircraft – LAND AS SOON AS POSSIBLE

Do not attempt to check door until aircraft is depressurized and on the ground.

Emergency Decent

1. Throttle – IDLE
2. Speed Brakes – DEPLOY
3. Propeller – HIGH RPM
4. Airspeed – 170 kts – 274 kts
   Caution do not exceed V_{NE}

Propeller Over speed

1. Throttle – REDUCE
2. Airspeed – SLOW TO REGAIN RPM CONTROL
3. Oil Pressure – CHECK
4. Oil Quantity - CHECK
5. Control Regained – ADD POWER
6. Airspeed – BELOW WHICH OVERSPEED OCCURED
7. Engine – MONITOR
8. Aircraft – LAND, DETERMINE PROBLEM

Alternator Failure

1. Master Switch – OFF
2. Avionics – OFF
3. Lights – OFF
4. Circuit Breaker – CHECK / RESET
5. Master Switch – ON
6. Essential Elements – ON, ONE AT A TIME
7. Problem – ISOLATE

Speed Brakes Deployed

1. Speed Brake – CYCLE

If still deployed:

2. Circuit Breaker – PULL

If still deployed:

3. Landing airspeed – 110 kts.

If only one side deployed

4. Landing Airspeed – 110 kts.

Emergency Gear Extension

1. Airspeed – BELOW 120 kts
2. Gear Motor Circuit Breaker – PULLED
3. Gear Handle – DOWN
4. Emer Hand Pump – PUMP

Pump handle until main gear lights are GREEN and handle is stiff.

Emergency Speed Reduction

1. Throttle – IDLE
2. Aircraft – NOSE UP
3. Speed Brakes – DEPLOY
4. Gear – EXTEND BELOW 150 kts
5. Flaps – EXTEND BELOW 132 kts.

Aircraft Operating +Speeds KCAS

V_{NE} - Red Line	274
Caution Range	220 - 274
V_A - Maneuvering	170
V_{NO} – Green Arc	69 - 220
V_{FE} – 0 to 10 Deg.	174
V_{FE} – White Arc	61 - 132
V_X – Best Angle	110
V_Y – Best Rate	135
V_S - Clean	69
V_{SO}	61
V_{LO} - down	150
V_{LO} - up	120
V_{LE}	165
Max X-Wind	25

Oil Temperature Deg. F.

Maximum	240
Caution Range	210 - 240
Operating Range	160 - 200
Takeoff Minimum	100

Oil Pressure PSI.

Maximum	100
Caution Range	10 - 30
Normal Range	30 - 60
Minimum	10